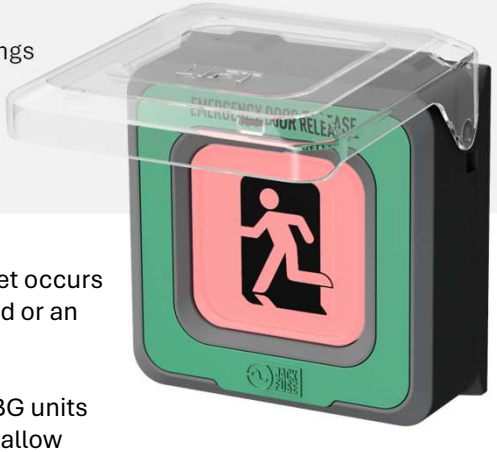
ELECTRONIC BREAK GLASS (EBG)

Description

The Jack Fuse Electronic Break Glass represents a significant advancement in security technology, offering remote and automatic reset capabilities. For the first time, the need to attend and perform a manual reset has been eliminated, along with associated costs.

The new reset modes, combined with audible and visual feedback, substantially enhance security by reducing the time doors are left unlocked unnecessarily, as well as discouraging nuisance activations.



Features

- Automatic, remote and local reset
- Lift-up activation guard
- Case and wall tamper switch
- Back-lit status indication
- Activation sounder
- Adjustable brightness/volume
- Local override switch
- Two relay contacts
- Common footprint/mounting options for simple retrofit

Applications

- Emergency door release
- Electric locks and auto doors
- New installations and retrofits
- Remote facilities
- High-security sites
- Managed and unmanaged buildings

Reset Options

Automatic reset is achieved by using the door lock power to energise the EBG. Reset occurs the next time the lock power is cycled. This may be when a card or exit button is used or an access schedule changes, for example at the end of business hours.

Remote reset uses a dedicated control voltage which can be shared between all EBG units in a facility. This voltage can be switched by a button, key switch, or system relay to allow operator override.

Local reset can be either via the concealed reset button, or when in automatic mode by cycling lock power (card read or exit button.) A local override switch can be used to keep the door unlocked during service or repair works. The local override option can be disabled.

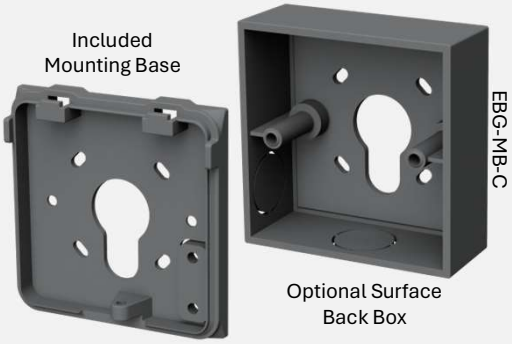
Reset options can be combined to allow remote, automatic and local reset of the same EBG. High security facilities may choose to implement system logic to check the EBG status and automatically reset after a set time period or time of day.

Versatile Mounting

The same mounting hole pattern as traditional square break glass units allows for efficient retrofits. No new holes required and for auto reset and in most cases no new cables are needed. A slightly larger base helps cover old paint edges.

The EBG is supplied with fixing holes and screws to facilitate mounting on existing break glass bases and square, recessed electrical wall boxes.

An optional back box with conduit knockouts is available for hard surface mounting.



Technical Data

Relay	2 X 3A SPDT (1 Form C)
Operating voltage	12 & 24VDC* - Fail safe**
Power	55mA @ 12VDC (red LED + sounder on)
Dimensions	86X86X40mm (with guard)
Tamper Output	1A NC, wall + case
Primary materials	Polycarbonate, Polyamide 46, fiberglass
Country of origin	China
Colour	Charcoal with green facia

Ordering

EBG-C	Electronic Break Glass with guard
EBG-MB-C	Surface mounting back box
Mini-FRI-XX	Relay for auto door/gate interface

*Built in low power setting to help performance even when lock voltage falls below 12VDC.

**On power fail the EBG will deactivate and release lock power.

Contact Jack Fuse for custom colours, branding and wording.

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Expected Operation Life

Actuator*	10^5 Operations (presses)
Latch*	10^7 Cycles
Relay Output**	
500mA	11^6 Operations
2A	12^5 Operations
3A	10^5 Operations

*Operation data is derived from component datasheets and down rated for a safety deviation margin. The four actuator buttons are configured in a redundant design and the latch is solid state.

**Relay operation data is derived from two second cyclic load testing with a 50% duty cycle.

Notes on Expected Operation Life

Regular switching of high current loads, such as multiple electromagnetic locks, will impact the operational life of the EBG relay outputs. (For reference 6 X standard electromagnetic locks equal 3A at 12VDC)

For high traffic doors with demanding current/lock requirements there are several strategies that can extend the life of, and help ensure reliability of the EBG.

- Use the EBG in dedicated power mode. Dedicated power mode will minimise output switching.
- Drive secondary relays from the EBG output. Use one or more interface relays, such as the Jack Fuse Mini-FRI to switch large current loads.
- Use multiple EBG units. This will reduce the current load on the output and ensure only the relevant escape door is unlocked during an activation.

Specifier Text

Break glass units (also known as emergency door release) shall be fitted to automatic doors and doors featuring fail safe electric locks. The emergency door release shall break the positive side of the lock power to release the lock and allow egress.

The break glass shall provide a visual and audible indication upon activation. These warning signals shall be adjustable in brightness and volume. A secondary contact shall be made available for monitoring of the break glass status.

Remote reset. The break glass unit shall feature options for remote reset either via software or remote operator intervention.

Automatic reset. The break glass unit shall feature an option to be automatically reset without direct operator intervention. This may be via software automation or via cycling of local lock power.

A tamper switch that monitors case opening and optionally, removal of the entire unit from the wall, shall be monitored either independently or in series with break glass activation monitoring.

A transparent activation cover shall be fitted to help prevent accidental activations.

Application Examples

The unique automatic and remote reset features allow the EBG to be used in innovative ways that increase safety and security. The below examples are just some of the applications that have been used in the real world.

- Using access control software to automatically reset the EBG 120 seconds after activation. This has been implemented both via a dedicated reset relay and via cycling the door control/lock power output.
- Automatic reset on card swipe. Using lock power mode, any valid card read will unlock the door and reset the EBG.
- The EBG has been used on re-entry doors. During an emergency the EBG can be activated to provide re-entry into a floor/area. A dedicated reed switch on the door automatically resets the EBG and secures the lock as soon as the door has been opened.
- Implement a single shared reset relay that can be used to reset all EBG units at once via operator override or software intervention.

Learning

Become a **Jack Fuse Product and Power Certified Technician**. Free training available online.

More Information: For complete installation notes, data sheets and technical support please visit www.jackfuse.com

Application notes with more information about break glass retrofits/upgrades and using the EBG with automatic doors/gates are available via the Jack Fuse website.